

A summary of the bird's nesting activity is given in Table 5.

Table 5: Summary of activity in 1996-1997 & 1997-1998

| Particulars | Activity in the year | |
|--|----------------------|-----------|
| | 1996-1997 | 1997-1998 |
| 1. Total nests observed | 58 | 62 |
| 2. Total birds seen | 80 | 67 |
| 3. Total chicks seen | 20 | 12 |
| 4. Adult birds seen on the nest | 49 | 52 |
| 5. Chicks seen on the nest | 20 | 12 |
| 6. Number of nests with adult and chicks | 15 | 10 |
| 7. Number of inactive nests | 03 | 06 |

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12. CANNIBALISM IN INDIAN WHITE-BACKED VULTURE *GYPS BENGALENSIS*
 IN KEOLADEO NATIONAL PARK, BHARATPUR, RAJASTHAN

On May 22, 1997, at 0600 hrs, five Indian white-backed vultures *Gyps bengalensis* and a few crows *Corvus splendens* were observed feeding on a small carcass in the Keoladeo National Park, Bharatpur, Rajasthan. Some crows and four vultures were sitting on the ground close to the carcass waiting for their turn to feed. The carcass appeared to be small in size and could not be seen clearly as it was surrounded by the scavengers. Through the spotting scope, it appeared to be a carcass of a dark coloured bird. On closer approach, we found that it was a dead adult Indian white-backed vulture. It was a fresh half-eaten carcass. After a few hours, by 0930 hrs, the carcass was almost finished.

The Indian white-backed vultures are carrion eaters, which feed mostly on large mammal carcasses (Ali and Ripley 1983). The reason for cannibalism in Indian white-backed vulture is not clear, but it was certainly not due to scarcity of food, as there was an abundant supply of food for vultures in the Keoladeo

National Park (Prakash 1999).

This observation was recorded when the vulture mortality was at its peak, at the beginning of the crash in the population of the Indian white-backed vulture.

Cannibalism is observed in many predatory birds such as barn owls *Tyto alba*, short-eared owls *Asio flammeus*, Oriental honey-buzzards *Pernis ptilorhynchus* and some sea birds. We have not come across any reference to cannibalism in the Indian white-backed vulture, hence this observation is worth recording.

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13. WINTERING SITE FIDELITY IN WESTERN MARSH-HARRIER *CIRCUS AERUGINOSUS* (LINN.), IN KEOLADEO NATIONAL PARK, BHARATPUR, RAJASTHAN

The Western marsh-harrier *Circus aeruginosus* is a common winter visitor to the Keoladeo National Park, Bharatpur, Rajasthan (27° 7.6' - 27° 12.2' N and 77° 29.5' - 77° 33.2' E). The Bombay Natural History Society has been carrying out intensive studies on the wintering ecology of the species in the Park since 1996.

Six Western marsh-harriers were studied during the winter of 1999-2000. Four harriers were fitted with radio-transmitters, and two were ringed. One adult female was ringed with a black band on the right leg with 'C' etched on it, and two rings – one each of plastic (orange coloured) and aluminium on the left leg. The rings could be clearly seen with binoculars and telescope from a distance of 100-200 m. The bird was caught on January 20, 2000, in the wetland of Block 'K' of the Park by the Stick and Glue Method, on fish bait. It left for its breeding ground by the end of March 2000. The bird was seen every winter since 1996 in this area and was identified by its peculiar plumage and eye colour, before ringing. It was recorded again in winter in the same area on October 14, 2000.

Site fidelity for breeding grounds has already been recorded in Western marsh-harriers (Witkowski 1989). However, I have not come across any reference on Western marsh-harriers returning to the wintering ground, year after year.

Wintering site fidelity has been recorded in birds. Fischer (1981) found thrashers *Toxostoma* sp. in the same wintering territories for the consecutive year, and Price (1981) recorded greenish leaf-warblers *Phylloscopus trochiloides* returning to the same wintering areas in southern India. Among raptors, Steppe buzzards *Buteo buteo vulpinus* in South Africa, rough legged buzzards *Buteo lagopus* in South Sweden, and common buzzards *Buteo buteo* in Europe have been found returning to the same wintering areas in successive years (Olsson 1958, Newton 1979). One *Buteo buteo* was seen in the same place for eight consecutive winters, and another distinctive bird for twelve winters (de Bont 1952, Schuster 1940).

Birds have been recorded returning to the same territories year after year, both at breeding and wintering grounds, because they are likely to be more successful as they have to spend less time in getting familiarised with the habitat, predators and to some extent food sources. Site fidelity in birds also reflects on the quality of habitat in terms of food and habitat availability.

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